

### AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): ~~A sound~~ An audio data recording/reproducing apparatus capable of editing ~~sound~~ audio data made up of a plurality of tracks comprising:

    a first storage device that stores a plurality of sound data;

    a second storage device that stores track data, comprising current track data and track history data, for each of a plurality of tracks, the track data for each of the tracks including first information for designating, as partial sound data to be reproduced in the track corresponding to the track data, at least one part of one sound data of said plurality of sound data stored in said first storage device, and second information for designating respective reproduction timing of the designated partial sound data; and

a reproduction device that, in accordance with the current track data for each of the tracks stored in said second storage device, reads out and reproduces respective partial sound data designated by said first information of the current track data from said first storage device, at the respective reproduction timing designated by said second information of the current track data for the respective partial sound data; and

    a processor coupled with said first storage device and said second storage device, said processor being adapted to:

        perform an editing operation for editing the current track data for a desired one of the tracks, in accordance with an editing instruction for editing, to create new current track data; and

        perform control to store the edited new current track data for the desired track in said second storage device while leaving the current track data before the editing stored in said second storage device, as one of the track history data; and

perform control to select, in accordance with an instruction for undoing, one of the track history data, as new current track data.

Claims 2-6 (canceled)

Claim 7 (currently amended): An audio data recording/reproducing apparatus comprising:

a first storage device randomly accessible on a cluster-by-cluster basis, audio data being stored dividedly across a plurality of clusters in such a manner that the audio data amounting to a first data quantity or less than said first quantity are stored in each of the clusters;

a second storage device that stores track data indicating reproduction order of a plurality of clusters to be sequentially reproduced and a particular quantity of audio data of at least one of the plurality of clusters to be reproduced during the sequential reproduction of the plurality of clusters based of the track data; and

a reproduction device that, on the basis of the track data stored in said second storage device, reads out the clusters from said first storage device in the reproduction order indicated by the track data and reproduces respective audio data of the read out cluster sequentially; and

a processor coupled with said first storage device and said second storage device, said processor being adapted to:

detect if the particular quantity of audio data of at least one of the clusters indicated by the track data is less than a second data quantity in at least one of the clusters or not which is smaller than said first data quantity,

~~when the processor detects the particular quantity of audio data is less than the second data quantity which is smaller than the said first data quantity, combine the audio data of the one cluster with the audio data of another cluster that precedes or follows the one cluster in the reproduction order when the processor detects that the particular quantity of audio data of the one cluster is less than the second data quantity, to obtain combined audio data of which data quantity is equal to or more than said second data quantity; and~~

store the combined audio data into a cluster for reproducing reproduction separate from the at least one cluster in said first storage device, and add information indicating the cluster for reproduction to the track data stored in said second device, so that wherein the combined audio data stored in the cluster for reproduction is reproduced instead in place of the one cluster during the sequential reproduction of the plurality of clusters based on the track data.

Claim 8 (currently amended): An audio data recording/reproducing apparatus as claimed in claim 7 wherein said processor is further adapted to edit ~~any one of a plurality of clusters represented the track data stored in said second storage device, by changing the reproduction order, said of the plurality of clusters including a cluster where a data quantity of the audio data to be reproduced is smaller than said second data quantity and/or the particular quantity of said at least one of the plurality of clusters indicated by the track data, in accordance with an instruction for editing.~~

Claim 9 (currently amended): An audio data recording/reproducing apparatus comprising:

a first storage device randomly accessible on a cluster-by-cluster basis, audio data being stored dividedly across a plurality of clusters in such a manner that the audio data amounting to a first data quantity or less than said first quantity are stored in each of the clusters;

a second storage device that stores track data indicating reproduction order of a plurality of clusters to be sequentially reproduced and a particular quantity of audio data of at least one of the plurality of clusters to be reproduced during the sequential reproduction of the plurality of clusters based on the track data, wherein, for at least one particular cluster of which the particular quantity is less than a second data quantity which is smaller than said first data quantity, combined audio data obtained by combining the audio data of the particular cluster with the audio data of another cluster that precedes or follows the particular cluster in the reproduction order is stored in a cluster for reproduction in said first storage device, and information indicating the cluster for reproduction is added to the track data stored in second storage device; and

a reproduction device that reads out and reproduces the audio data of the clusters from said first storage device, in accordance with the track data stored in said second storage device and in the reproduction order indicated by the track data,

wherein when a reproducing cluster is prepared for a particular one of the plurality of clusters represented by the reproduction order and when the particular cluster is to be reproduced during reproduction of the plurality of clusters in the reproduction order, said reproduction device reads out and reproduces the audio data from the reproducing cluster for reproduction indicated by the information added to the track rather than from the particular cluster.

## Claim 10 (canceled)

Claim 11 (previously presented): An audio data recording/reproducing apparatus as claimed in claim 9 which further comprises an editing device that edits any one of the plurality of clusters represented by the reproduction order, said plurality of clusters including the particular cluster.

Claim 12 (currently amended): An audio data recording/reproducing method, executed in an audio data recording/reproducing apparatus having a first storage device that stores a plurality of sound data, and a second storage device that stores track data, comprising current track data and track history data for each of a plurality of tracks, the track data for each of the tracks including first information for designating, as partial sound data to be reproduced in the track corresponding to the track data, at least one part of one sound data of said plurality of sound data stored in said first storage device, and second information for designating respective reproduction timing of the designated partial sound data, and a reproduction device that, in accordance with the current track data for each of the tracks stored in said second storage device, reads out and reproduces respective partial sound data designated by said first information of the current track data from said first storage device, at the respective reproduction timing designated by said second information of the current track data for the respective partial sound data, said apparatus capable of editing sound data audio data made up of a plurality of tracks, said method comprising:

a step of editing the current track data for a desired one of the tracks, in accordance with an editing instruction for editing, to create new current track data; and

a step of performing control to store the edited new current track data for the desired track in said second storage device while leaving the current track data before the editing stored in said second storage device, as one of the track history data; and

a step of performing control to select, in accordance with an instruction for undoing, one of the track history data, as new current track data.

Claim 13 (currently amended): An audio data recording/reproducing method, executed in an audio data recording/reproducing apparatus having a first storage device randomly accessible on a cluster-by-cluster basis, audio data being stored dividedly across a plurality of clusters in such a manner that the audio data amounting to a first data quantity or less than said first quantity stored in each of the clusters, and a second storage device that stores track data indicating reproduction order of a plurality of clusters to be sequentially reproduced and a particular quantity of audio data of at least one of the plurality of clusters to be reproduced during the sequential reproduction of the plurality of clusters based on the track data, and a reproduction device that, on the basis of the track data stored in said second storage device, reads out the clusters from said first storage device in the reproduction order indicated by the track data and reproduces respective audio data of the read out cluster sequentially, said audio data recording/reproducing method comprising:

a step of detecting if the particular quantity of audio data of at least one of clusters indicated by the track data is less than a second data quantity ~~in at least one of the clusters or not which is smaller than said first data quantity~~;

a step of, when said step of detecting detects the particular quantity of audio data of the one cluster is less than the second data quantity ~~which is smaller than said first data quantity is detected by said step of detecting~~, combining the audio data of the one cluster with the audio data of another cluster that precedes or follows the one cluster in the reproduction order to obtain combined audio data of which data quantity is equal to or more than said second data quantity; and

a step of storing the combined audio data into a cluster for reproduction separate from the ~~at least one cluster in said first storage device, wherein and adding information indicating the cluster for reproduction to the track data stored in said second storage device, so that the combined audio data stored in the cluster for reproduction is reproduced instead in place~~ of the one cluster during the sequential reproduction of the plurality of clusters based on the track data.

Claim 14 (canceled)

Claim 15 (original): A computer program comprising computer program code means for performing all the steps of claim 12 when said program is run on a computer.

Claim 16 (original): A computer program comprising computer program code means for performing all the steps of claim 13 when said program is run on a computer.

Claim 17 (canceled)

Claim 18 (currently amended): An audio data recoding/reproducing apparatus capable of editing audio data made up of a plurality of tracks comprising:

a sound data storage device that stores a plurality of sound data;

a track data storage device that stores track data, comprising current track data and track history data, for each of a plurality of tracks, the track data for each of the tracks including first information for designating, as partial sound data to be reproduced in the track corresponding to the track data, at least one part of one sound data of said plurality of sound data stored in said first storage device, and second information for designating respective reproduction timing of the designated partial sound data, for each of a plurality of tracks, a plurality of track data as history of editing, each of said track data including information for designating respective extraction regions of one or more partial sound data which should be extracted, as partial sound data to be reproduced in the track corresponding to the track data, from said plurality of sound data stored in said sound data storage device, and information for designating respective reproduction timing of said one or more partial sound data extracted from said plurality of sound data, said reproduction timing being represented by relative time from a performance start time point of said audio data;

a track editing device that edits current track data among the history of editing for any desired one of the tracks stored in said track data storage device, in accordance with an editing instruction for editing, in such a manner that at least one of partial sound data of said current track data is modified or deleted or new partial sound data is added to said current track data, and then stores the edited current track data, as new current track data in the history of editing, for the desired track in said track data storage device, while leaving the current track data before the editing stored in said track data storage device, as one of the track history data;

a track reproduction means device that, in accordance with the current track data for each of the tracks stored in said track data storage device, reads out and reproduces respective partial sound

data of the respective extraction regions designated by said first information of the current track data from said sound data storage device, at the respective reproduction timing designated by said second information of the current track data for the respective partial sound data;

a control device that performs control to select, in accordance with an undoing instruction for undoing, one of the track history data ~~before the editing among the history of editing~~ stored in said track data storage device, as new current track data.

Claim 19 (currently amended): An audio data recording/reproducing apparatus comprising:

a first storage device randomly accessible on a cluster-by-cluster basis, audio data being stored dividedly across a plurality of clusters in such a manner that the audio data amounting to a first data quantity or less than said first quantity are stored in each of the clusters;

a second storage device that stores track data indicating reproduction order of a plurality of clusters to be sequentially reproduced and a particular quantity of audio data of at least one of the plurality of clusters to be reproduced during the sequential reproduction of the plurality of clusters based on the track data;

a reproduction device that, on the basis of the track data stored in said second storage device, reads out the clusters from said first storage device in the reproduction order indicated by the track data and reproduces respective audio data of the read out cluster sequentially;

a detecting device that detects if the particular quantity of audio data of at least one of the clusters indicated by the track data is less than a second data quantity in at least one of the clusters or not which is smaller than said first data quantity,

a combining device that, when the processor that detects the particular quantity of audio data is less than the second data quantity which is smaller than said first data quantity, combines the audio data of the one cluster with the audio data of another cluster that precedes or follows the one cluster in the reproduction order to obtain combined audio data of which data quantity is equal to or more than said second data quantity; and

a control device that performs a control to store the combined audio data into a cluster for reproduction separate from the at least one cluster in said first storage device, wherein and add information indicating the cluster for reproduction to the track data stored in said second storage device, so that the combined audio data stored in the cluster for reproduction is reproduced instead in place of the one cluster during the sequential reproduction of the plurality of clusters based on the track data.

Claim 20 (new): An audio data recording/reproducing apparatus as claimed in claim 18, wherein said first information designates respective extraction regions of one or more partial sound data which should be extracted, as partial sound data to be reproduced in the track corresponding to the track data, from said plurality of sound data stored in said sound data storage device.

Claim 21 (new): An audio data recording/reproducing apparatus as claimed in claim 20, wherein said track editing device edits current track data in such a manner that at least one of partial sound data of said current track data is modified or deleted or new partial sound data is added to said current track data.

Claim 22 (new): An audio data recording/reproducing apparatus as claimed in claim 18, wherein said reproduction timing is represented by relative time from a performance start time point of said audio data.

Claim 23 (new): An audio data recording/reproducing apparatus as claimed in claim 18, wherein said track editing device edits current track data for said desired one of the tracks by changing, adding, or deleting at least one partial sound data to/from the desired track.

Claim 24 (new): An audio data recording/reproducing method as claimed in claim 13, which further comprises a step of editing the track data stored in said second storage device, by changing the reproduction order of the plurality of clusters and/or the particular quantity of said at least one of the plurality of clusters indicated by the track data, in accordance with an instruction for editing.

Claim 25 (new): An audio data recording/reproducing apparatus as claimed in claim 19, which further comprises an editing device that edits the track data stored in said second storage device, by changing the reproduction order of the plurality of clusters and/or the particular quantity of said at least one of the plurality of clusters indicated by the track data, in accordance with an instruction for editing.